(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 21 October 2004 (21.10.2004)

PCT

(10) International Publication Number WO 2004/089916 A1

(51) International Patent Classification?: C07D 243/38, A61K 31/551, A61P 3/00

(JP). MITANI, Hironobu [JP/JP]; 4-21-2-1-405, Matsushiro, Tsukuba-shi, Ibaraki Pref. 305-0035 (JP).

(21) International Application Number:

PCT/EP2004/003806

(22) International Filing Date: 8 April 2004 (08.04.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0308335.9

10 April 2003 (10.04.2003) GB

- (71) Applicant (for all designated States except AT, US): NO-VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).
- (71) Applicant (for AT only): NOVARTIS PHARMA GMBH [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SAKAKI, Junichi [JP/JP]; 4-5-9, Ninomiya, Tsukuba-shi, Ibaraki Pref. 305-0051 (JP). KONISHI, Kazuhide [JP/JP]; 2-4-6-506, Sengen, Tsukuba-shi, Ibaraki Pref. 305-0047 (JP). KISHIDA, Masashi [JP/JP]; 4-13-4-103, Ninomiya, Tsukuba-shi, Ibaraki Pref. 305-0051 (JP). KIMURA, Masaaki [JP/JP]; 1-20-34, Sengen, Tsukuba-shi, Ibaraki Pref. 305-0047 (JP). UCHIYAMA, Hidefumi [JP/JP]; 2-4-6-301, Sengen, Tsukuba-shi, Ibaraki Pref. 305-0047

(74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellec-

tual Property, CH-4002 Basel (CH).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: 11-PHENYL-DIBENZODIAZEPINE DERIVATIVES AS RXR-ANTAGONISTS

(57) Abstract: The present invention relates to novel benzodiazepine compounds exhibiting RXR-antagonist efficacy, for delaying progression of, preventing or treating a condition or disease being associated with RXR-antagonism, in particular selected from diabetes, complication of diabetes such as retinopathy, nephropathy, neuropathy, and hyperlipidemia, obesity, dyslipidemia, and osteoporosis.